necessary for search and rescue operations because of the nature of the terrain to be flown over.

(c) Notwithstanding the requirements of paragraph (a) of this section, installation and use of a single LRNS and a single LRCS may be authorized by the Administrator and approved in the certificate holder's operations specifications for operations and routes in certain geographic areas. The following are among the operational factors the Administrator may consider in granting an authorization:

(1) The ability of the flightcrew to reliably fix the position of the airplane within the degree of accuracy required by ATC,

(2) The length of the route being flown, and

(3) The duration of the very high frequency communications gap.

[Doc. No. 6258, 29 FR 19205, Dec. 31, 1964, as amended by Amdt. 121–253, 61 FR 2611, Jan. 26, 1996; Amdt. 121–254, 61 FR 7191, Feb. 26, 1996]

§ 121.353 Emergency equipment for operations over uninhabited terrain areas: Flag, supplemental, and certain domestic operations.

Unless the airplane has the following equipment, no person may conduct a flag or supplemental operation or a domestic operation within the States of Alaska or Hawaii over an uninhabited area or any other area that (in its operations specifications) the Administrator specifies required equipment for search and rescue in case of an emergency:

(a) Suitable pyrotechnic signaling devices.

(b) An approved survival type emergency locator transmitter. Batteries used in this transmitter must be replaced (or recharged, if the battery is rechargeable) when the transmitter has been in use for more than 1 cumulative hour, or when 50 percent of their useful life (or for rechargeable batteries, 50 percent of their useful life of charge) has expired, as established by the transmitter manufacturer under its approval. The new expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter. The battery useful life (or useful life of charge) requirements of this paragraph do not apply to batteries (such as water-activated batteries) that are essentially unaffected during probable storage intervals.

(c) Enough survival kits, appropriately equipped for the route to be flown for the number of occupants of the airplane.

[Doc. No. 6258, 29 FR 19205, Dec. 31, 1964, as amended by Amdt. 121–79, 36 FR 18724, Sept. 21, 1971; Amdt. 121–106, 38 FR 22378 Aug. 20, 1973; Amdt. 121–158, 45 FR 38348, June 9, 1980; Amdt. 121–239, 59 FR 32057, June 21, 1994; Amdt. 121–251, 60 FR 65932, Dec. 20, 1995]

§ 121.355 Equipment for operations on which specialized means of navigation are used.

(a) No certificate holder may conduct an operation—

(1) Using Doppler Radar or an Inertial Navigation System outside the 48 contiguous States and the District of Columbia, unless such systems have been approved in accordance with appendix G to this part; or

(2) Using Doppler Radar or an Inertial Navigation System within the 48 contiguous States and the District of Columbia, or any other specialized means of navigation, unless it shows that an adequate airborne system is provided for the specialized navigation authorized for the particular operation.

(b) Notwithstanding paragraph (a) of this section, Doppler Radar and Inertial Navigation Systems, and the training programs, maintenance programs, relevant operations manual material, and minimum equipment lists prepared in accordance therewith, approved before April 29, 1972, are not required to be approved in accordance with that paragraph.

[Doc. No. 10204, 37 FR 6464, Mar. 30, 1972]

§ 121.356 Traffic Alert and Collision Avoidance System.

(a) Unless otherwise authorized by the Administrator, each certificate holder operating a large airplane that has a passenger seating configuration, excluding any pilot seat, of more than 30 seats, shall equip its airplanes with an approved TCAS II traffic alert and collision avoidance system and the appropriate class of Mode S transponder according to the following schedule: